

REMARKS

The specification at page 1, line 1 is being amended modify the title to indicate more clearly the invention to which the claims are directed, as requested by the Examiner.

Claims 1-23 are pending in the application, with Claims 1, 12, and 23 being independent claims. Claims 1-23 stand rejected. Claims 1, 2, 7, 12, 13, and 23 are being amended. As presented below, no new matter is believed to be introduced by way of the amendments.

Claims 2 and 13 stand objected to as lacking antecedent basis. Claims 2 and 13 are being amended to recite "the first and second switch fabrics" to provide proper antecedent basis. Support for this amendment can be found in the specification and drawings as originally filed at least on page 11, lines 6-14, FIG. 5, and base claims 1 and 12.

In section 4 of the present Office Action, Claims 1-7, 9, 12-18, 20 and 23 were rejected under 35 U.S.C. 102(e) as being anticipated by Simons (U.S. Patent No. 6,332,198 B1) ("Simons").

Claim 1 as amended recites, "multiple first switch fabrics to perform facility protection switching at a substrate of the signals," where the underlined words indicate elements added by way of amendment in the Claim Listing above. Support for the amendment is found in the specification as originally filed at least on page 8, lines 15-24 and FIGs. 3, 5 and 7A.

An example embodiment of the present invention provides for switching signals in a network that includes multiple protection switch fabrics to perform facility protection switching at a substrate of the signals, and a central switch fabric to switch a subset of the signals in a non-facility protection switching manner among the protection switch fabrics.

Referring briefly to Applicants' FIG. 5, protection switch fabrics 325 in communication with to a central switch fabrics 320 are illustrated. In an example embodiment, protection groups 410 may operate at OC-192 rates, and the protection switch fabrics 325 may operate at STS-1 or VT1.5 rates and provide corresponding switching granularity. (See page 11, lines 24-26, and FIG. 5.) In other words, the protection switch fabric 325 may switch signals at a substrate of the input signal. Thus, multiple first switch fabrics perform "facility protection switching at a substrate of the signals," as claimed in amended Claim 1.

In contrast, Simons provides a method and apparatus for supporting multiple redundancy schemes, such as 1:1, 1+1, and 1:N, in a single network device (Abstract). Port cards are connected to a SONET fiber that carries a Time Division Multiplex (TDM) byte stream. “The same or different protocols may be carried over different paths within the same TDM byte stream. In other words, ATM over SONET may be carried on at STS-1 path within a TDM byte stream” (Column 46, lines 24-30). The 1:1, 1+1, and 1:N redundancy schemes do not require STS-1 visibility.

Consequently, in Simons, the byte streams may be carried on the paths, however, Simons does not teach or otherwise suggest signal protection switching at the TDM level, i.e., at a subrate of the input signal. Signal carrying is not the same as signal protection switching.

The 1:1, 1+1, and 1:N redundancy schemes cited in Simons do not require subrate visibility (e.g., STS-1 or VT1.5) visibility. Furthermore, to switch signals at the TDM level, Simons’ cross-connect card 562a, 566a as shown in FIG. 35a would need to examine payload data, which Simons specifically states is not done. See, for example, column 51, lines 24-31:

Unlike the switch fabric card, the cross-connection card does not examine header information in a payload to determine where to send the data. Instead, the cross-connection card is programmed transmit payloads, for example, SONET frames, between a particular serial line on a universe port card port and a particular serial line on a forwarding card port regardless of the information in the payload.

Thus, Simons does not teach or otherwise suggest multiple first switch fabrics to perform “facility protection switching at a subrate of the signals” as now claimed in amended independent Claim 1. Independent claims 12, and 23 are being amended in a similar manner.

Accordingly, Applicants respectfully submit that the rejection of Claims 1, 12, and 23 under 35 U.S.C. 102(e) are overcome.

Because Claims 2-11 and 13-22 depend from now amended Claims 1 and 12, these dependent claims should be allowed for least the same reasons as the base claims from which they depend.

Claim 7 is being amended to recite, “the first or second switch fabrics support Time Division Multiplexing (TDM) switching, fixed-length switching, or variable-length switching” to be consistent with corresponding method claim 18 as originally filed. Additional support for this

amendment may also be found at least on page 8, lines 25-27 of the specification as originally filed.

In section 6 of the present Office Action, Claim 8 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Simons in view of Taniguchi (U.S. Patent No. 6,456,587 B2) (“Taniguchi”). Dependent Claims 8 and 19 depend from now amended base Claims 1 and 12, respectively. Because the Taniguchi reference was not cited against base Claims 1 and 12, Applicants submit that dependent Claims 8 and 19 should be allowed for at least the same reasons as the base claims from which they depend.

In section 7 of the present Office Action, Claims 10 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Simons in view of Li (U.S. Patent No. 2004/0213205 A1) (“Li”). Dependent Claims 10 and 21 depend from now amended base Claims 1 and 12, respectively. Because the Li reference was not cited against base Claims 1 and 12, Applicants submit that dependent Claims 10 and 21 should be allowed for at least the same reasons as the base claims from which they depend.

In section 8 of the present Office Action, Claims 11 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Simons in view of Chang (U.S. Patent No. 5,920,412A) (“Chang”). Dependent Claims 11 and 22 depend from now amended base Claims 1 and 12, respectively. Because the Chang reference was not cited against base Claims 1 and 12, Applicants submit that dependent Claims 10 and 22 should be allowed for at least the same reasons as the base claims from which they depend.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims, Claims 1-23, are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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